WHAT WE CLAIM IS:

1. An image recording device equipped with a plurality of light sources and a photosensitive unit which is scanned by said light sources, said device comprising:

an interference light quantity setting block for setting the quantity of interference lights of a plurality of image signals corresponding to said light sources;

an interference block for interfering said image signals with said preset light-quantity component only;

a delay time setting block for setting delay times of a plurality of pixel clocks corresponding to said light sources;

a delay block for delaying said pixel clocks by said preset time periods only;

a memory block for storing interference data output from said interference block in synchronism with said pixel clocks and outputting said interference data in the order that they were written by delay data output from said delay block; and

a pulse-width modulating block for modulating the pulse widths of interference data which is output from

said memory block.

2. An image recording device as claimed in claim 1 further comprising:

an exposure block for exposing a preset test pattern onto the surface of said photosensitive unit by means of said plurality of light sources; and

a surface potential measuring block for measuring the surface potential of said exposed photosensitive unit.

3. An image recording device as claimed in claim 1 further comprising:

an exposure block for exposing a preset test pattern onto the surface of said photosensitive unit by means of said plurality of light sources; and

at least one developer for attaching developing agent to the surface of said photosensitive unit which is exposed by said exposure block; and

a density measuring block for measuring the density of a toner image formed on said photosensitive unit by said developer.

4. An image recording device as claimed in claims 2 and 3 wherein said test pattern has at least two kinds of

patterns for measuring scanning line pitches in the main scanning direction and in the subsidiary scanning direction.

5. An image recording device as claimed in claim 1 wherein said delay ~~block~~ is executed after said interference ~~block~~ is executed.

6. An image recording device as claimed in claim 1 wherein said interference ~~block~~ unit can set an arbitrary main scanning line pitch.

7. An image recording device as claimed in claim 1 or 6 wherein said plurality of light sources are a cleavage-type or area-illumination type semiconductor laser array.

8. An image recording device equipped with an engine block consisting of a plurality of light sources and a photosensitive unit which is scanned by said light sources,

a controller block for generating a plurality of image signals and pixel clocks corresponding to said light sources and

a correction block for correcting the quantity of

exposure in said optical system of said engine block according to said image signals and said pixel clocks generated by said controller block and sending said correction information to said engine block, wherein said correction block further comprising:

an interference light quantity setting block for setting the quantity of interference lights of a plurality of image signals corresponding to said light sources;

an interference block for interfering said image signals with said preset light-quantity component only;

a delay time setting block for setting delay times of a plurality of pixel clocks corresponding to said light sources;

a delay block for delaying said pixel clocks by said preset time periods only;

a memory block for storing interference data output from said interference block in synchronism with said pixel clocks and outputting said interference data in the order that they were written by delay data output from said delay block; and

a pulse-width modulating block for modulating the pulse widths of interference data which is output from said memory block.

9. An image recording device equipped with a plurality of pulse-width modulators for modulating pulse widths of a plurality of laser driving signals according to image data and a plurality of laser light sources for emitting a plurality of laser beams whose light quantities are controlled by ~~these~~ said laser driving signals and which forms images by scanning ~~these~~ said plurality of laser beams, said device further comprising:

means for obtaining a dispersion in pulse-width modulation of said plurality of laser driving signals and correcting said plurality of laser driving signals according to this dispersion.

10. An image recording device as claimed in claim 9 wherein said means for correcting said plurality of laser driving signals corrects said plurality of laser driving signals by outputting a plurality of monitoring laser driving signals according to identical image data through said plurality of pulse-width modulators when the mode for correcting said laser driving signals is set and obtaining the dispersion in the pulse-width modulation of said laser driving signals.

11. An image recording device as claimed in claim 10 wherein said means for correcting said plurality of laser driving signals obtains the dispersion in the pulse-width modulation of these laser driving signals by selecting one of said plurality of monitoring laser driving signals as one target value and subtracting the pulse width of this target value from the pulse width of each monitoring laser driving signal.

12. An image recording device as claimed in claim 9 wherein said means for correcting said plurality of laser driving signals corrects peak values of laser driving signals according to the dispersion of the pulse-widths of said laser driving signals.

13. An image recording device as claimed in claim 9 wherein said means for correcting said plurality of laser driving signals corrects pulse-widths of laser driving signals according to the dispersion in the pulse-width modulation of said laser driving signals.

14. An image recording device comprising

a printer engine for scanning with a plurality of laser beams having different phases and printing image data;

a pulse-width modulator equipped with a plurality of pulse generating means for modulating the pulse-width of said image data with a pulse-width determined by a combination of a plurality of delay elements for each beam and outputting the pulses as print data from said pulse generating means to said printer engine; and

a pulse-width corrector ~~for comparing~~ which compares the pulse-widths output from said plurality of pulse generating means by the reference pulse-width and ~~correcting~~ corrects pulse-widths by a combination of said delay elements in said plurality of pulse generating means according to pulse-width differences.

15. An image recording device, comprising:

a printer engine for scanning a photosensitive unit by a plurality of laser beams having different phases ~~and~~ for printing image data;

a pulse-width modulator equipped with a plurality of pulse generating means for setting a pulse-width by a combination of a plurality of delay elements, modulating the pulse-width of said image data with said preset pulse-width, and outputting the result as print data to said printer engine;

a synchronization limiting means for synchronizing

the pulse width modulation with said plurality of pulse generating means; and

a pulse-width corrector ~~for correcting~~ which corrects the pulse-width which is set by said delay elements for each pulse generating means so that each pulse-width output by said plurality of pulse generating means may be equal to the reference pulse-width in synchronization.

16. An image recording device, comprising:

a printer engine for scanning a photosensitive unit by a plurality of laser beams having different phases ~~and~~ for printing image data;

a pulse-width modulator equipped with a plurality of pulse generating means for setting a pulse-width by a combination of a plurality of delay elements, modulating the pulse-width of said image data with said preset pulse-width, and outputting the result as print data to said printer engine;

~~a~~ synchronization limiting means for synchronizing the pulse width modulation with said plurality of pulse generating means; and

a pulse-width corrector ~~for correcting~~ which corrects the pulse-width which is set by said delay elements for each pulse generating means with a pulse width selected (as a reference pulse-width) from pulses output from said

plurality of pulse generating means in synchronization so that each pulse-width output by said plurality of pulse generating means may be equal to the reference pulse-width.

17. An image recording device, comprising:

a printer engine for scanning a photosensitive unit by a plurality of laser beams having different phases for printing image data;

a pulse-width modulator equipped with a plurality of pulse generating means for setting a pulse-width by a combination of a plurality of delay elements, modulating the pulse-width of said image data with said preset pulse-width, and outputting the result as print data to said printer engine;

a synchronization limiting means for synchronizing the pulse width modulation with said plurality of pulse generating means; and

a correction image data generating means for giving image data for correction to said plurality of pulse generating means in synchronization of said plurality of pulse generating means; and

a pulse-width corrector which corrects the pulse-width which is set by said delay elements for each pulse generating means with a pulse width selected as

a reference pulse-width from pulses output from said plurality of pulse generating means in synchronization so that each pulse-width output by said plurality of pulse generating means may be equal to the reference pulse-width.

18. An image recording device, comprising:

a printer engine having a beam detector for detecting a plurality of laser beams which are emitted at preset time intervals from laser sources, scanning a photosensitive unit with said plurality of laser beams, and thus printing image data;

a pulse-width modulator equipped with a plurality of pulse generating means for modulating the pulse-width of said image data with a pulse-width set by a plurality of serially-connected delay elements and outputting the modulated pulses to said printer engine;

a printer interface means for generating image clocks in synchronism of beam detection signals output from said beam detector;

a pixel clock selecting means for selecting said pixel clock in pulse-width correction and outputting the selected clock to said plurality of pulse generating manes to synchronize pulse-width modulation

with said plurality of pulse generating ~~means~~ means; and

a pulse-width corrector ~~for correcting~~ which corrects the pulse-width which is set by said delay elements for each pulse generating means so that each pulse-width output by said plurality of pulse generating means may be equal to the reference pulse-width.

19. An image recording device comprising:

an image recording block equipped with a plurality of laser beams and a plurality of detecting means which detect laser beams;

a beam detection signal controller for outputting Beam Detection Position Control signals to control scanning line pitches of laser beams according to a plurality of beam detection signals output from said image recording block; and

a controller for controlling said image recording block at least according to said Beam Detection Position Control signals.

20. An image recording device as claimed in claim 19, wherein said controller further comprises:

an operation ~~block~~ unit on which instructions are given externally; and

a storage ~~block for storing~~ unit which stores said instruction data

and test chart data to detect positional differences of said beams.

21. An image recording device as claimed in claim 19, wherein said beam detection signal controller further comprises:

a time delay ~~block~~ unit for delaying said beam detection signals corresponding to said beams independently according to the signals from said controller.

22. An image recording device as claimed in claim 21, wherein said time delay block further comprises:

a variable-position signal generator for generating and outputting Variable Position signals which vary the positions of said beams in sequence for each preset input image area;

a fixed-position signal generator for generating and outputting Fixed Position signals which place said beams at preset positions; and

a selector ~~for selecting~~ which selects either said Variable Position signal or said Fixed Position signal according to the Position Control signal output from said controller.